

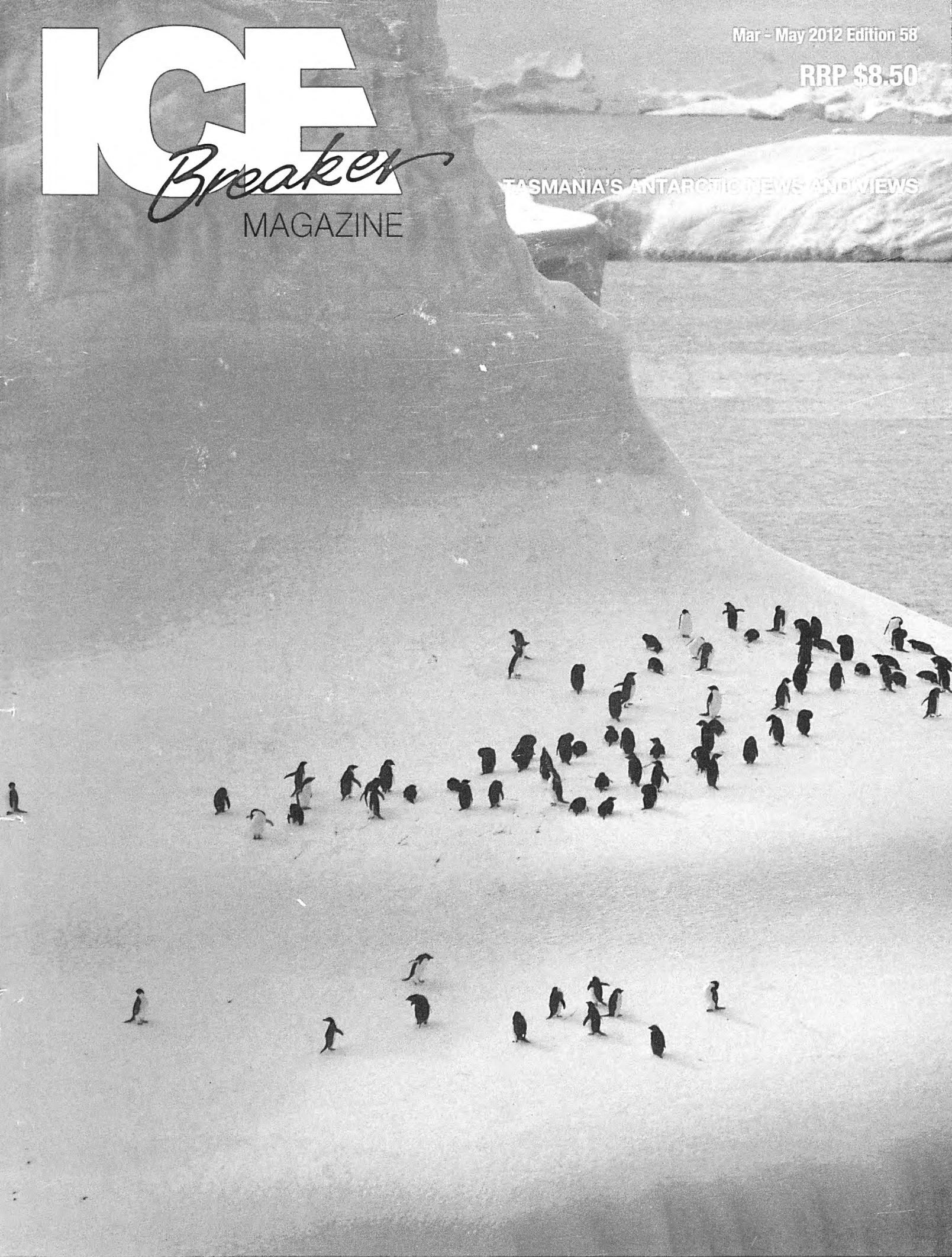
ICE

Breaker
MAGAZINE

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TASMANIA'S ANTARCTIC NEWS AND VIEWS



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Cover picture

Courtesy Frederique Olivier



Editorial

It was exciting to attend so many Mawson centennial events in December and meet such an interesting group of people involved in Antarctic activities, either in the past, present or future. More events, receiving good media promotion, are occurring this year.

In this edition, particular thanks must go to Greg Mortimer, who provided an article about the Amundsen centenary event at the South Pole and to AAD Director Tony Fleming, for the commemoration ceremony at Mawson's Huts.

Together with all the major Antarctic anniversaries, I am also pleased to note that this year marks the 30th anniversary of the first fibreglass Igloo Satellite Cabin being purchased by the Australian Antarctic Division. The cabin is still in use for storage.

Tasmanian Polar Network members are now working towards the Antarctic Treaty Consultative Meeting in June this year, with new member profiles and a new website being prepared.

I urge anyone with goods and services suitable for Antarctic use to join the TPN and participate in this year's opportunities for polar business.

Anthea Wallhead

Editor, Ice Breaker

ICE Breaker MAGAZINE

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Editor and Production Coordinator
Anthea Wallhead

Design and layout
Robert Wallhead
David Hopkins

Research
Peter Wallhead

Printer
Newprint Pty Ltd

Comments and contributions for future editions are most welcome.

Address Editorial Correspondence to:
Editor, Ice Breaker
240 Watsons Road,
Kettering,
Tasmania,
Australia 7155

Phone: 03 6267 4774
Fax: 03 6267 4335
Email: anthea@icewall.com.au
Internet: icebreakermagazine.com

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Commonwealth Bay, Antarctica. Photo: Tony Fleming.

Centenary at South Pole

The ceremony to mark the centenary of the arrival of Roald Amundsen, Helmer Hanssen, Sverre Hassel, Oscar Wisting and Olav Bjaaland at the South Pole started in a low key way on 14 December 2011. Hours before the official start of events, two hundred or so people emerged from their tents or from the Amundsen-Scott Scientific station and slowly converged on a red and white striped, metre high barbers pole, the Ceremonial South Pole.

We formed a circle around the Pole in amongst the flags of the 12 nations who were the original signatories to the Antarctic Treaty. It was minus 38°C with clear blue skies and virtually no wind, but that slight zephyr was enough to chill the nose and chin. We waited calmly for the arrival of the Norwegian Prime Minister and the small group of contemporary polar heroes who would put words to the occasion. Next to the Ceremonial Pole there was a metre high plinth of ice, draped in a piece of brown felt. There was a quiet, nervous warmth in the crowd, fuelled by the realization of how lucky we were to be there.

Two hundred metres to the north of the Pole (towards New Zealand) sits the massive grey structure of the American scientific station. It is perched on white stilts, which hold the building clear of the ice cap and is home to more the 200 people in the summer.

One kilometre to the north (towards Chile) there is a series of low containers that house the extraordinary Ice Cube Project. This space age program detects neutrinos, which have emanated from the Big Bang and are still passing through earth.

Twelve hundred metres to the north (towards Argentina) a large telescope array looks like it has just landed from outer space.

One kilometre to the north (towards London) there is a tented temporary camp for 100 people, built by the private company ALE (Antarctic Logistics and Expeditions) to house expeditioners who have walked, skied, driven or flown to the Pole, just to be there at this very moment. One kilometre north (towards Central Asia) a multi-storey lab collects clean air.

The Prime Minister, Jens Stoltenberg, in typical Norwegian style, arrived without fanfare, and took up position next to the Pole. He was accompanied by new age polar greats - Jan-Gunnar Winther, Stein P. Aasheim and Børge Ousland.

Immediately and without any prompting, the crowd plunged into a deep silence, worthy of the ice cap. The red-jacketed Norwegian explorers who dominated the crowd, were fidgeting and smiling proudly.

Jens Stoltenberg (pictured below) cuts a fine figure. He is tall, lean, is a keen skier and has devoted a week to come to the Pole. Such is the importance of the Centenary to Norway.



The Norwegian anthem was played by a solo flautist from the US station before Stoltenberg said:

"We are here to celebrate one of the most outstanding achievements of mankind. And we are here to highlight the importance of this cold continent for the warming of the globe... Roald Amundsen, Robert Scott and their men were prepared to make an extraordinary effort in order to reach their ambitious goals. We need to be prepared to do the same. That is the best way to honour a century of science and exploration at the South Pole... Thank you.

To mark the historic achievements a hundred years ago, it is now my privilege to unveil this bust of Roald Amundsen here at the South Pole, made by the Norwegian artist Håkon Anton Fagerås." And so he unveiled an ice carving of Amundsen (above).

Imagine what Amundsen would think of this spectacle. I like to think he would smile.

Greg Mortimer





David O'Byrne

Minister for Economic
Development

Potential for sustained growth

As we approach the last few months of the Antarctic Centennial Year (ACY) it is a good time to reflect on all that has been celebrated so far and on the opportunities that still lie ahead.

The most significant historical Antarctic anniversary for Australians, the centenary of Douglas Mawson's Australasian Expedition, has been celebrated in Hobart, with the Tasmanian Government, through Antarctic Tasmania and the Antarctic Centennial Year Advisory Group, mounting a memorable Douglas Mawson Centenary Flotilla event on 2 December 2011.

With our partners TasPorts, the Australian Antarctic Division, Mawson's Huts Foundation and Hobart City Council, we worked with CSIRO, P&O, the Royal Yacht Club and the Motor Yacht Club of Tasmania to attract approximately 2,500 spectators (including five school groups) to Regatta Point, with 174 registered vessels participating in the sail past on the River Derwent. The event received excellent media coverage from the three local television networks, The Mercury newspaper, Lateline and other ABC national radio and television programs.

Other events which the Department of Economic Development, Tourism and the Arts supported at this time included a fundraising dinner for the Mawson Huts' Foundation which I attended with my distinguished guests, the Chinese Consul-General and the Chinese Consul for Antarctic Affairs. China is Australia's closest neighbour in Antarctica and relationships between the Tasmanian Government and the People's Republic of China continue to strengthen.

More than 600 people attended the Mawson Huts' Foundation dinner including the Governor-General; the Governor of Tasmania; the Federal Minister for Sustainability, Environment, Water, Population and Communities, the Hon. Tony Burke; descendants of the men from the Mawson 1911 voyage and a number of tourists from cruise vessels which departed to Antarctica from Hobart on 2 December 2011.

The Traversing Antarctica exhibition developed by National Archives Australia also opened at the Tasmanian Museum and Art Gallery on 1 December 2011 after being launched by Minister Burke earlier in the day. In his speech Minister Burke recognised Hobart as the nation's headquarters for Antarctic activities and expertise.

The next major ACY event is the Amundsen Centenary re-enactment and Huskies Picnic on Sunday 11 March 2012. This will be a free family event starting with a re-enactment of Roald Amundsen, complete with dog-sled, trekking from Hobart's waterfront to the GPO steps to dispatch his now-famous telegram advising the King of Norway that he had conquered the South Pole. The procession will then head for St David's Park for the Huskies Picnic, which will showcase dogs working in a number of helpful roles and many other aspects of Tasmania's Antarctic-related capabilities. The International Polar Heritage Conference coincides with this event and a public seminar will be held on the evening on Sunday 11 March 2012 at Hadley's Hotel.

The ACY culminates with Hobart hosting the 35th Antarctic Treaty Consultative Meeting also in Hobart in June. Planning for this prestigious event with global significance is now well underway.

The state's Economic Development Plan released late last year identified science and research activities associated with the Antarctic and Southern Ocean, and businesses that supply logistics and support services for this sector, as being a priority and having potential for sustained growth. Subsequently a strategy plan specifically for the Antarctic sector was also developed and launched. This plan provides a springboard to further promote Hobart as a global headquarters for Antarctic policy and science with unique strategic advantages.

Continued Page 9



Elise Archer
Liberal Member for
Denison

An international capital

Douglas Mawson and his Australasian Antarctic Expedition first landed at Cape Denison on 8 January 1912.

That day changed the relationship between Australia and Antarctica forever, and the centenary celebrations underway throughout the year highlight the strength of that relationship.

When Mawson left Australia and set out for Antarctica, it was still an area of the great unknown, but an unknown that would become a place of national and global significance, and one that would change our relationship with the continent forever.

Although Mawson's first expedition to Antarctica was also the first with a scientific focus, data collected from the expedition is still used today, in terms of climate knowledge and climate change for both reference and comparison purposes.

While technology has changed significantly over the past 100 years, the primary reason for the expedition has not – to advance the relationship between Australia and Antarctica.

The Antarctic sector already generates more than \$180 million each year and employs close to 1000 people, and Tasmania's relatively close proximity and accessibility to Antarctica is a distinct advantage to the State.

As one of only five international gateways to Antarctica and the only one that provides ready access to the Southern Ocean, Macquarie Island and the vast Antarctic region – Hobart has an advantage greater than any other city in Australia, and one on which we must capitalise.

The millions of dollars that have been invested in strengthening the relationship between Tasmania and Antarctica, including research and development advancements and the development of an air service, will no doubt offer a number of opportunities well into the future.

Significant investment in air services between Tasmania and Antarctica have dramatically changed summer season travel to the Antarctic by offering a flexible transport option and have already improved the way that Australia supports its overall Antarctic program. The new Airlink plane made its first landing at the Casey Station in late 2007 and now allows scientists to be able to avoid the two week trip via sea in favour of a relatively short, 4-hour flight.

On top of this, infrastructure developments have made a significant contribution to the economic, scientific and social structure of the Antarctic-Tasmania relationship.

Developments such as these have also seen Hobart become one of the international capitals for Antarctic research. Organisations such as the CSIRO and the University of Tasmania have been working together to combine their knowledge and undertake research in marine science.

This year's celebrations are not only a celebration of the vital role that Tasmania plays as an Antarctic gateway, but also the importance of strengthening the bond between Tasmania and Antarctica well into the future.

The Tasmanian Liberals firmly believe we need to do what we can to focus on growing this sector in a way that will benefit and add value to both the lives of Tasmanians, and to Tasmania's relationship with Antarctica.

Mawson Station is now the oldest continuously occupied station south of the Antarctic Circle, and I can only imagine what the next 100 years might hold in terms of research, and strengthening the relationships of both Australia and Tasmania with the Antarctic.

I look forward to following the many centenary celebrations that will unfold throughout 2012 to mark this momentous occasion.



Cassy O'Connor

Green's spokesperson on
Antarctic affairs

Plastic Pollution

The increasing amount of information now available concerning the global problem of plastic pollution in our oceans is of huge concern.

Over a decade ago we learnt of the great Pacific garbage patch. The artistically beautiful but tragic photo documentary work of photographer Chris Jordan helped to put the issue on the radar. His photos of dead and dying albatross chicks from Midway Island created a great sense of sadness. Albatross chick carcasses full of plastic fed to them by their parents mistaking it for food.

The same outcome is being documented on World Heritage listed Lord Howe Island by local marine biologist Dr Jennifer Lavers. Both have provided important contributions to raising the profile and awareness of the devastating effects of our addiction to plastics and the poor attitude of its disposal.

It now appears that there are few beaches on the planet, even in the most remote and seemingly pristine locations, that are free of plastic pollution. The source of the problem has been identified as both land and sea based.

Litter discarded at sea, is evident amongst the considerable amount retrieved during the annual South West Marine Debris Clean up. The yearly event in South West Tassie's World Heritage area is organised by Matt Dell, supported by some dedicated fisher folk and sponsored by many local companies. The ten years of data collected has made an important contribution to understanding the content and circulation of marine debris the majority of which is plastic pollution.

On land, anything that is not disposed of properly stands a good chance of finding its way to the sea. Enviropod litter traps deployed around inner city Hobart capture lots of plastic, about 50% of their content. Stream litter-booms also play an important role and most of the content is plastic. But these measures don't capture everything.

At a global level the amount of plastic pollution entering the oceans is immense.

In a broader sense, it may be the plastic that we can't see that poses the greatest problem. There is much to be discovered about the long-term effects of micro plastics on many species and the seafood industry on which much of the planet relies should be worried.

Biodiversity in our oceans is under terrible strain from over-exploitation, the effects of climate change and ocean acidification and now the prospect of plastic adding to the toll.

The role of the scientific community is critical to understanding the current situation, tracking changes and solving the problems. Decision makers, too often paralysed and incapable of making decisions and reluctance to accept scientific facts, need to realise the longer the indecision the more difficult the problem becomes. We need to accept the science and the data and act.

The Greens will continue to argue for a state-wide plastic bag ban and state based container deposit scheme to help reduce the volume of materials contributing to the global problem of plastic marine pollution. Tasmania's contribution may be negligible on a global scale but we need to take the lead and act locally and do what we can to solve the problem at the source.

IMAS

The recent approval of the Macquarie Wharf Shed Number 2 (Mac2) re-development is another positive result for Antarctic research along with the much anticipated, internationally significant, Institute for Marine and Antarctic Studies (IMAS) which will soon be erected. Mac2 will provide much needed storage for Antarctic Division operations, hopefully adding further value to Antarctic and Southern Oceans research.



John Brennan
Chairman, TPN

So many positive initiatives

Welcome to 2012. As I write this brief article I am preparing myself to go south with the French Antarctic Program for a three-week round trip. Last time I went south was 2003/04 with the Australian Antarctic Program and it seems like ages ago. Back then I was thrilled at the prospect of revisiting the great white continent and counting myself lucky to be visiting for the second time. Indeed I feel privileged to visit again and I'm acutely aware that I am a very fortunate individual. It will be interesting to take note of the similarities and differences between the two national programs.

While most people do not get to travel south there is something to be said for the access we have to the wealth of Antarctic and Southern Ocean experiences we have in Tasmania. The realisation that the sector has so much potential for the future is gaining solid support. The recent Mawson and the forthcoming Amundsen celebrations stand testament to the fact that we are proud of our Tasmanian connection with Antarctica and that as a community we are prepared to reinforce this through public celebrations. Congratulations to all those who organised the Mawson flotilla. What an event!! Mawson's Huts Foundation also organised a most splendid dinner the night before the flotilla at which I believe over 600 supporters attended. The crescendo will be the ATCM in June and I am aware that the AAD are pulling all stops with DFAT and DEDTA to make sure that this international meeting will be very successful. TPN will play its role in hosting strategic guests and I am aware that Hobart City Council will also be playing their part.

Somewhere down the track, hopefully not too far down, these efforts will be rewarded by way of future business expansion, science and research gains/linkages. With so many positive initiatives it could be easy to let ones guard down. I have hinted at it before, and it needs mentioning again, that the ACE-CRC require support from the sector. It is no secret that the ACE-CRC's current funding will cease in two years and that they are one of the important jewels in our Antarctic crown.

This independent entity, of international repute, hosts world leading researchers. Their work intertwines integrally and leverages with all the other sector players including AAD, CSIRO and IMAS.

Tasmania can ill-afford to ignore what it will mean if ACE-CRC dissolves and the talent dissipates. We cannot afford to lose this intelligent jewel from our crown, so I encourage you write to your federal member and lobby for a bipartisan solution that leaves Tasmania and the sector no worse off.

Icewatch - David O'Byrne (continued)

We recently marked the 20th anniversary of the Madrid Protocol, which enshrined Antarctica as a natural reserve dedicated to peace and science. The anniversary of this important international agreement between Australia, Spain and France was celebrated here in Hobart, with former Prime Ministers of Australia and France, Bob Hawke and Michel Rocard in attendance.

Combined with our history, culture, and critical mass of businesses and institutions, events like the Antarctic Centennial Year give a great sense of momentum to the Antarctic sector.

Antarctica was the last continent to be discovered, but it holds the key to our future. I feel excited and inspired about Tasmania's growing role as the Gateway to Antarctica.

I am very pleased to see the ACY continues to demonstrate Tasmania's significance nationally and internationally as a place where Antarctic and Southern Ocean science and business activity thrives.



Damon Thomas

Lord Mayor

Renewing the Statement of Intent

As final preparations are being made to welcome delegates to Hobart for the 35th Antarctic Treaty Consultative Meeting (ATCM) in June 2012, Hobart City is also preparing to host a Southern Rim Gateway Cities meeting.

In 2009 a 'Southern Rim Gateway Cities Statement of Intent' was signed by the five Antarctic gateway cities of Christchurch, Cape Town, Ushuaia, Punta Arenas and Hobart.

The Council has recently extended invitations to gateway city Mayors to attend a meeting of the Southern Rim Gateway Cities in June 2012, to coincide with the ATCM being held in Hobart at that time.

The Council sees great value in having key city representatives in Hobart at the same time as the national government of those cities. It provides a unique opportunity to bring together an influential set of people to discuss Antarctic and Southern Oceans matters.

The meeting will provide the opportunity for gateway city Mayors to meet with ATCM delegates, participate in high level discussions and further strengthen the gateway cities relationship. The current 'Southern Rim Gateway Cities Statement of Intent', signed by the cities in Christchurch in 2009, will also be renewed.

It is envisaged the two-day program will include:

- Presentations by Tasmanian and Australian Antarctic sector stakeholders such as AAD, Antarctic Tasmania, Tasports, UTas and TPN.
- An invitation to attend an ATCM Reception hosted by the Tasmanian Polar Network.
- A tour of Hobart's many cultural, environmental and historical points of interest, including visits to Antarctic and Southern Ocean related facilities.

- Formal discussion time for gateway city Mayors and by Council officers; and

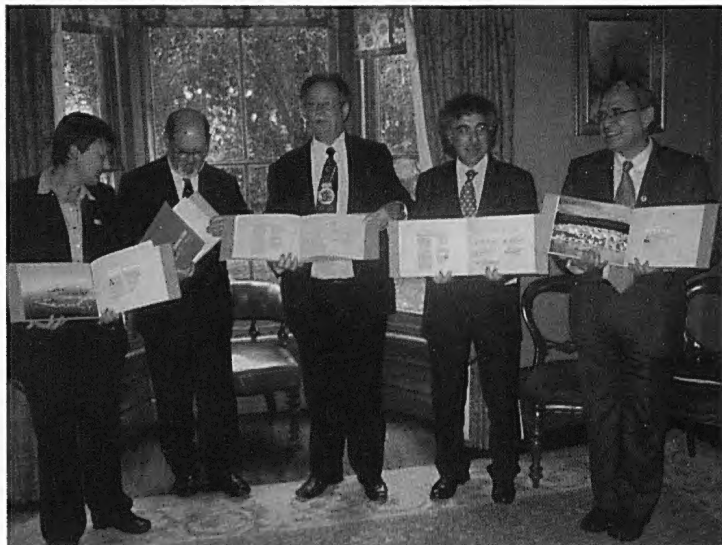
- A formal dinner to sign the renewed 'Southern Rim Gateway Cities Statement of Intent'.

The local governments of the five gateway cities share a unique opportunity to foster and promote common interests and benefits in relation to the Antarctic and Southern Ocean sector.

Although the opportunity for the five cities to work together between meetings is limited, the opportunity exists to bring the cities together on a regular basis to formally discuss relevant Antarctic and Southern Ocean issues.

In hosting this meeting, the Council hopes to strengthen the ties between the community and the Antarctic sector. We as a Council hope to reinforce the importance of Hobart as an Antarctic gateway city.

Original Signatories in 2009 L-R: Alderman Felicity Purchase, Cape Town RSA; former lord Mayor of Hobart Rob Valentine; Norm Withers, Deputy Mayor of Christchurch, NZ; Daniel Leguizamon, Secretario de Turismo, Ushuaia, Argentina; Jose Retamales, COMNAP Chairman, Punta Arenas, Chile. Photo: Klaus Arne Pedersen.





Antarctic Centennial Year
Celebrating Tasmania's enduring endeavour in the Antarctic.

2011-12
Hobart, Tasmania

Amundsen's Hobart activities

It is a genuine gathering of Old Antarctic Hands for the ceremony on the steps of the GPO to commemorate 100 years since Roald Amundsen sent his famous telegram from Hobart – coming up on Sunday, March 11. Rod Ledingham, Antarctic station leader and one of the last men to run with the dogs in Antarctica, veteran broadcaster Tim Bowden, whose book *The Silence Calling* remains the authoritative history of the ANARE program and Rob Easter, another former station leader and now expeditioner for the Mawson's Huts Foundation will be there with MC Ric Paterson.

The vivid re-enactment of the Amundsen story, featuring a live dog team and a vintage Antarctic sled, will race through the streets of Hobart from Elizabeth Street Pier to the General Post Office to St David's Park. It's a light-hearted rendering of an important story – the Norwegian explorer was the first to reach the geographical South Pole, weeks before his rival, British naval officer Robert Falcon Scott. Her Excellency the Norwegian Ambassador to Australia will unveil a plaque commemorating the event, which took place on 7 March, 1912.

Historian John Williamson explains the significance of the day...

"By 1911 Hobart was attuned to the sight and sound of Antarctic Expeditions. During the previous decade the port of Hobart had accommodated the ships of various expeditions to the south: Bull, Borchgrevink, Mawson and others. So when the Fram sailed into the Derwent in March 1912 it was exciting but not really a novelty. Until, that is, Hobart's citizens realised just what Amundsen had done and what he had come to Hobart to tell the world.

The Fram appeared unannounced in the Derwent on Thursday, 7 March, 1912. After a flurry of signals to the Mount Nelson signal station she stated that she was "Fram from the Bay of Whales". She then dropped anchor some distance off Battery Point and, after a time, Roald Amundsen the expedition leader came ashore with the Harbour Master on the launch Egeria.

After this there are conflicting accounts of the exact order of events. Amundsen's own diary claims that he went first to Hadley's Orient Hotel and, despite some initial troubles about being recognised (according to Huntford, and Amundsen's diary, he was treated like a tramp), he was given a room there: a fairly small room. It was not, however, the wonderful Amundsen Suite that graces the hotel today.

Then it seems that Amundsen was taken to the home of the Norwegian consul, James Macfarlane, at Newlands in Augusta Road, Newtown, and they went through Amundsen's mail. His next move was to the Hobart General Post Office where he sent his Norwegian telegrams to King Haakon VII of Norway, Fridtjof Nansen (his mentor) and then to his own brother Leon.

On the next day, Friday 8 March, a long telegram was sent (it is unclear if Amundsen, Prestrud or Nilsen sent it) to his financial supporters at the Daily Chronicle. This telegraph allegedly cost £198! During the evening of Friday 8 March, telegrams began to pour in as the world realised that Amundsen had won the Race to the Pole. The next day, Saturday, the Mercury reprinted the Daily Chronicle article with the Heading AMUNDSEN REACHES SOUTH POLE and there was an editorial comment.

On Tuesday 12 March, the ship of Mawson's Australian Antarctic Expedition (AAE), the Aurora entered port and, as she motored up the Derwent River, she dipped her flag in recognition of Amundsen's great feat, and her crew gave three cheers for the Fram."

The re-enactment will start at 11:00am, move up Elizabeth Street to the GPO, then race on to St David's Park, where a family-friendly Huskies Picnic will feature live dogs, Antarctic exhibits and displays and demonstrations of working dogs from Quarantine Tasmania, the Australian Federal Police and the Macquarie Island Pest Eradication Program among others. The Australian Antarctic Division will be there with a Hagglund and polar equipment and there is a special display by the National Archives of Australia on the history of Australia's Antarctic dogs. Entertainment is from the Royal Australian Navy Band.

The Huskies Picnic runs from 12:00 noon to 4:00 pm and there are lots of activities for children. Admission is entirely free, presented as part off the Antarctic Centennial Year. Details are on the website: www.antarcticcentennial.tas.gov.au

Paul Cullen

Event Manager, Antarctic Centennial Year



Photo: Sue Halliwell

IMAS construction launch

Prime Minister Julia Gillard launched construction of the University of Tasmania's new Institute for Marine and Antarctic Studies (IMAS) on 16 January 2012.

The \$45 million IMAS building project is an initiative of the Australian Government, funded under the nation-building Education Investment Fund. John Holland-Fairbrother Joint Venture was appointed as Managing Contractor (Stage 2) on 10 January 2012, and site work recommenced on 1 February.

The building is scheduled for practical completion in late 2013 and to be fully operational in early 2014. The new IMAS building will house 290 marine and Antarctic researchers, support staff, and students, providing opportunities for collaborative investigations of national and international significance.

Located adjacent to CSIRO's Marine and Atmospheric Research laboratories and close to the Australian Antarctic Division, IMAS will contribute to consolidating Hobart as one of the world's great precincts for marine and Antarctic research, with approximately 1000 dedicated staff across the three organisations.



IMAS Executive Director Prof Mike Coffin (far right) describing IMAS to (from right to left) Prime Minister Julia Gillard, Senator Lisa Singh, Julie Collins MP, and UTAS Deputy Vice-Chancellor-Research Prof Paddy Nixon. (Chris Czerar)

Demolition of concrete slab at the IMAS building site. (John Holland-Fairbrother Joint Venture)

See 'Imaginative IMAS' in the June-August 2011 and 'IMAS Underway' in the December 2011 - February 2012 issues of *Ice Breaker*.



Prime Minister Julia Gillard with launch event attendees. From left to right, John Holland-Fairbrother Joint Venture Project Manager Gary Baird, IMAS Board Chair Prof Michael Stoddart, IMAS A/Prof Pete Strutton, Tasmania Deputy Premier Bryan Green, IMAS Marine & Antarctic Futures Centre Director Prof Craig Johnson, IMAS student Zhongnan 'Molly' Jia, UTAS Deputy Vice-Chancellor-Research Prof Paddy Nixon, IMAS student Mauro Varas, Prime Minister Julia Gillard, IMAS Senior Research Fellow Dr Mary-Anne Lea, Australian Antarctic Division and Antarctic Climate & Ecosystem Cooperative Research Centre Dr Mark Curran, Antarctic Climate & Ecosystem Cooperative Research Centre and IMAS student Sarah Ugalde, Julie Collins MP, IMAS Executive Director Prof Mike Coffin, and Senator Lisa Singh. (Peter Cochrane/UTAS)



Critical stage for hunters

Dog Handler Melissa Houghton. Photo Keith Springer

Dispatching more than 150,000 rabbits from a sub-Antarctic island of nearly 13,000 hectares is a huge achievement, but it is only the first stage of a world-leading program to rid the World Heritage-listed Macquarie Island of three pest species – rabbits, ship rats and house mice.

In the coming 12 months, the Tasmania Parks and Wildlife Service team of 13 hunters and dog handlers, and 11 highly trained dogs, faces its greatest challenge; keeping up the momentum of the rabbit eradication.

The Macquarie Island Pest Eradication Project (MIPEP) is at a critical stage after the first phase of aerial baiting was completed in July 2011.

The second phase involves the hunting team scouring the island using dogs, guns, traps and burrow fumigants to locate and kill surviving rabbits. It is hoped there are no rats or mice left, and now fewer than 10 rabbits.

Since July last year, the hunting team has killed a total of 13 rabbits, including four kittens found in November. Finding kittens was a sobering set-back for the team, serving as a reminder that the few survivors could breed and re-establish the rabbit population.

As those involved in such projects would know, pest eradication needs determination. The last individual animals will be the most difficult to get, and the most time-consuming and expensive. Project manager, Keith Springer said this is the main challenge for the hunting team.

“When a hunter calls in a rabbit kill from anywhere on the island, it’s viewed as a team success and the whole team buys into that success. It becomes a strong motivator to remind themselves that rabbits are still out there.” He explained that three areas on the island which have had previous indications or signs of rabbits have since ‘gone quiet’. “I’m confident that no significant population exists. The question is what has happened to the few survivors?”

While in the field, the hunting team looks for a range of clues for evidence of rabbits. Clues such as rabbit prints are obvious only in dirt or sand, for example on parts of the plateau, where windswept clay pans readily show any tracks. Snowfalls are also ideal for hunters monitoring rabbit tracks.

As the vegetation recovers from decades of over-grazing, any grazing on new vegetation such as the mega-herb *Pleurophyllum hookeri* is very obvious. Observations of fresh grazing have resulted in several rabbit kills since the completion of aerial baiting. Rabbits are able to graze selectively, and what goes in must come out. In some cases piles of droppings are quite evident, and at other times the hunter may only observe a single pellet or two.

There is optimism on the island as bird life is also recovering. Parks and Wildlife Service ranger on Macquarie Island, Bree Hunter, said that the eradication program has had a positive effect on burrowing petrel species.

Petrels were competing with rabbits for burrow space, and petrel eggs and chicks were eaten by rats. While it is too early in the breeding season for complete data on burrowing petrels, burrow occupancy of sooty shearwaters and white headed petrels appears to be higher than in previous years. Colonies of the two species are monitored monthly, and their breeding success will become clearer in autumn when chicks fledge.

Species such as the blue petrel which have been restricted to offshore rock stacks are also re-colonising the main island. Rabbit grazing severely reduced tussock cover and birds were vulnerable to predation from skua and rats. Last year the first fledging attempts were recorded on North Head, one of the few areas baited in 2010. This year there are estimated to be over 100 active blue petrel burrows on North Head alone.

The grey petrel is also doing well.

“The grey petrel is Macquarie Island’s only winter breeding petrel,” Bree said. “Last winter it had the highest breeding success rate, 87 per cent, since monitoring began in 2005. Grey petrels had not bred on the island for 100 years prior to cat eradication in 2000, and the fact that they are found nesting in new locations gives us an indication that it won’t be long before both new and historic petrel colonies will be thriving on the island once more.”

Naida McIntosh

Communications Officer Parks and Wildlife Service Tasmania



Celebrating 100 years in Antarctica

Tony Fleming
Director, Australian Antarctic Division

This year Australia celebrates 100 years of exploration and science in Antarctica. While Australians, including geologists Sir Edgeworth David and Douglas Mawson, had visited the continent prior to 1912, the Australasian Antarctic Expedition (AAE) of 1911–14, led by Mawson, was the first Australian-led and organised expedition to the Antarctic continent.

The landing party of the AAE spent their first night ashore at Commonwealth Bay on 8 January 1912. Their main living hut and workshop were constructed between blizzards over the following weeks, before an 'annexation ceremony' on 25 February. On 16 January this year, 26 modern-day expeditioners paid tribute to the men of the AAE and their achievements at the Mawson's Huts Historic Site.

I was honoured to be able to participate in the centennial service at Commonwealth Bay on that unusually windless and sunny day and to lay a time capsule on Proclamation Hill containing a message from our Prime Minister and children's visions of Antarctica in 100 years time.

It is my hope that when the time capsule is opened in 2112 we will be remembered as leaders in Antarctica, as Mawson and his men are remembered by us today.

Walking into the main living hut was like taking a step back in time. The hut is as they left it, with the paraphernalia of a polar expedition scattered in all corners. It was with a deep sense of history that I sat there for a few minutes just soaking up the atmosphere.

Mawson was a giant figure in the 'heroic era' of Antarctic exploration and he and his men and the crew of the *Aurora* were truly heading off the edge of the map when they sailed from Hobart in December 1911. But the AAE wasn't just about discovering new lands. It boasted a scientific program that was unparalleled in the history of Antarctic exploration. Mawson was first and foremost a scientist, and he knew the value of Antarctica for scientific discovery.

Antarctica and its surrounding ocean has become a globally unique region where many nations come together to undertake science for the public good. In the years since those early explorers made their first faltering steps in Antarctica, our research has taught us much about the continent and how its physical and biological systems function. With this has grown an awareness of the extraordinary degree to which Antarctica and the Southern Ocean drive global change.

Australia's Antarctic Science Program reflects our need to understand and respond to global change, and has placed Australia at the forefront of Antarctic science. Sir Douglas Mawson could be justly proud of the science legacy he left for Australia and would undoubtedly approve of our overarching ambition to value, protect and understand this very special and remote region.

It is very much in keeping with Mawson's vision and legacy that Australia continues to be a leader in East Antarctica, where our stations and science are focused and where Mawson's life's work led to the proclamation of the Australian Antarctic Territory.

When I read Mawson's journals, his lasting message is to look at the knowledge that Antarctica can provide for the future of Australia and the planet. During my first visit to Casey station this year it was clear that our scientists, and the expeditioners who support them, are discovering information that will help us answer the big questions of global change.

I am frequently asked - what is the enduring legacy of those early expeditioners? My answer is unequivocal - they laid the foundations for an entire continent to be devoted to peace and science, where nations work together in a spirit of collaboration. What a wonderful legacy they have left us! We must be ever vigilant to ensure that we preserve this legacy and hand it on to our grandchildren.



Above: Mawson's bunk. Photo: Tony Fleming, AAD.

Left: AAD Director, Dr Tony Fleming, places a time capsule at Proclamation Hill above Mawson's Huts, to mark the 100th Anniversary of the AAE landing at Commonwealth Bay. Photo: Dean Lewins, AAD.

Below: The Mawson's Huts centenary team poses for a photograph in front of the huts. Photo: Dean Lewins, AAD.





Polar Gateway facility on track for Hobart

Tasports' project to enhance Antarctic facilities in Hobart continues to move forward with Development Approval for the Macquarie 2 project secured on January 30th, 2012.

Maintenance and renewal of the Macquarie No.3 wharf deck areas to support expanded cargo operations is also well underway with over 220m² of wharf deck fully remediated during 2011 and additional works on a further 180m² of wharf deck planned for 2012.

The \$7 million redevelopment of Macquarie Wharf Shed No. 2 came about following months of consultation with key stakeholders including the Australian Antarctic Division, Tasmanian State Government, Tasmanian Polar Network and other industry representatives to determine their needs and discuss possible synergies.

Award winning architectural firm Circa Morris-Nunn Walker was selected to design the facility, and is currently finalising internal design and fit out with Tasports calling for tenders for construction and related services.

Works associated with the redevelopment are expected to commence in May of this year and completion is anticipated for early 2013.

The redevelopment of Macquarie Wharf Shed No 2 as a dedicated Cruise and Antarctic facility will build on Tasports' strategic plans to foster cruise and Antarctic activities in Hobart Port. The project demonstrates Tasports' commitment to develop Hobart Port as a long-term base for Antarctic and Southern Ocean research.

Architect impressions of the Macquarie 2 redevelopment can be viewed online under 'latest news' at Tasports website www.tasports.com.au.

Text and images kindly supplied by Kristy Richardson, Marketing Co-ordinator, Tasports



Work starts on new marine vessel

Work on Australia's new \$120 million Marine National Facility research vessel, Investigator, moved from the drafting table to the shipyard today.

Cutting the steel for the vessel started in Singapore, heralding a new era in marine and atmospheric research for scientists.

Australia's ocean territory is the third largest in the world and includes unique biodiversity and valuable resources and marine science is critical for the sustainable management of our ocean assets.

The Executive Director of the Future Research Vessel Project at CSIRO, Toni Moate, who is attending the steel cutting ceremony in Singapore, said the 93.6 metre research vessel will be capable of conducting marine research from coastal waters to the Antarctic ice edge and to the tropical waters to the north.

Above: The sheets of steel weigh between 1.4 and 2.45 tonne, and are 2.4m x 9.1m.

Below: Pressing the button - the head of the project, CSIRO's Toni Moate, was thrilled to launch a new era in marine and atmospheric research when she pressed the button to start construction.

Bottom: The construction shed at the new Marine National facility.

Text by Huw Morgan and images supplied by Sarah Scholfeld, Communication Officer, CSIRO.

Below: Artist's impression of Investigator.



The Southern Ocean - spectacular and unforgiving

Each year, at the beginning of December, fishing vessels from approximately 13 nations embark on long voyages that take them deep into international waters that surround the Antarctic continent in their quest for krill, toothfish and icefish. The fisheries in which these vessels operate are tightly regulated by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

CCAMLR is a multilateral organisation established by treaty with 25 member countries and the European Union comprising its membership. Including Pakistan's recent accession, ten additional States have now agreed to be bound by the provisions of the CCAMLR Convention. The CCAMLR Secretariat headquarters is in Hobart.

While CCAMLR may regulate the fisheries in this remote and unforgiving region, it does not have a role in regulating fishing vessel standards or crew safety. The responsibility for vessel safety standards rests with respective flag States.

CCAMLR members have regularly called on flag States to ensure that the vessels that they are responsible for are adequately equipped for safe operations in the harsh Southern Ocean environment and that the safety and welfare of crew are provided for. At the international level, vessel standards and crew safety is generally overseen by the International Maritime Organisation (IMO) although the provisions in IMO conventions and protocols do not always extend to fishing vessels. All CCAMLR members that are flag States are members.

The risk associated with operating in such a remote and hostile environment has been no more apparent than in the last two years.

In that time, three fishing vessels have been involved in serious incidents involving extensive, and expensive, search and rescue operations, loss of life and loss of vessels.

In December 2010, the 58m Korean longliner, In Sung 1, sunk. Twenty survivors and five deceased were recovered from the water by other fishing vessels. Seventeen other crew were never located. Crew included Koreans, Chinese, Indonesians, Vietnamese, Philipinos and Russians.

In December 2011 the 48m Russian fishing vessel, Sparta, reported to the Rescue Coordination Centre in New Zealand (RCCNZ) that it had a 30cm hole in its side 1.5m below the water line, that it had a severe list and was taking on significant water. The vessel was operating in the Ross Sea, about 3700 kilometres south east of New Zealand, with a crew of 32.

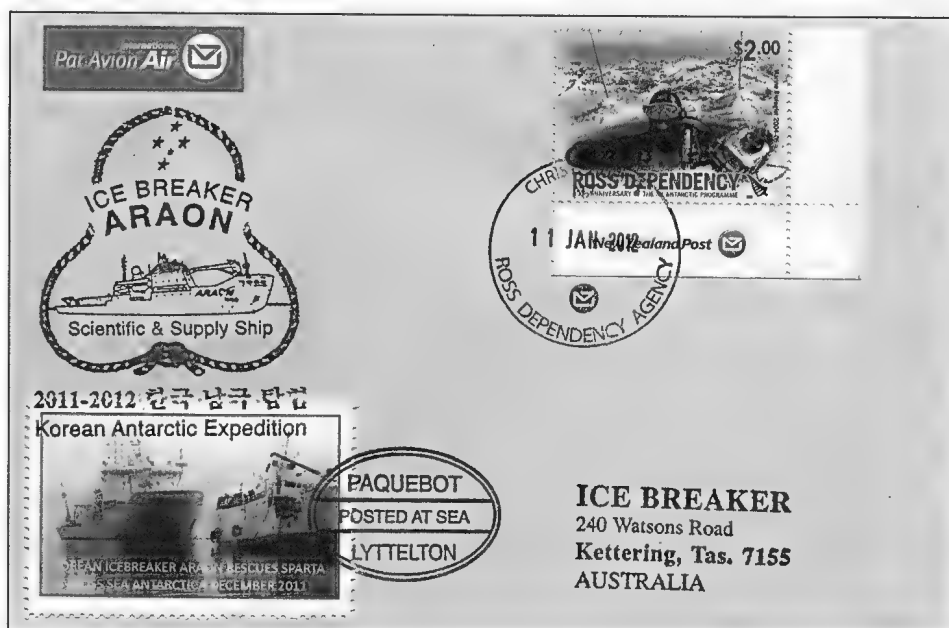
Other vessels in the area were hampered in their efforts to provide assistance to the Sparta by heavy sea ice which was up to 1.5m thick. Fortunately, despite the crew having to evacuate the vessel and spend periods on the ice adjacent to the vessel, no life was lost in this incident.

In this case, the Sparta's situation was again closely monitored by the RCCNZ which arranged for the deployment of a Hercules aircraft to provide support to the Sparta. After 12 days immobilised in the ice, the new Korean icebreaker, the Aaron, freed the Sparta following which it was towed to New Zealand by another fishing vessel for repair. The Sparta re-entered the fishery in February 2012.

In January 2012, three crew members died and five others were seriously burnt following a fire on board the Jung Woo 2, a 51m Korean longliner carrying a crew of 40. The Jung Woo 2 was also operating in the Ross Sea. Again the RCCNZ coordinated the rescue effort which involved other fishing vessels in the area and the research vessel Nathaniel B. Palmer. Surviving crew were either transferred to other fishing vessels or to McMurdo Station from where they were eventually taken to New Zealand for repatriation. The Jung Woo 2 is believed to have sunk.

Andrew Wright

Executive Secretary CCAMLR



Stamp cover showing Araon assisting Sparta.
Courtesy Klaus Arne Pedersen.

Fisheries under CCAMLR's watch

1 December 2011 saw the start of another fishing season in the Southern Ocean. This season, licensed vessels will target Patagonian and Antarctic toothfish (*Dissostichus eleginoides* and *D. mawsoni*), mackerel icefish (*Champsocephalus gunnari*) and Antarctic krill (*Euphausia superba*) under the watchful eye of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

Toothfish are generally caught using longlines set on the seafloor in depths of 1500-1800m; some toothfish are also taken by trawls and pots. Icefish and krill are both caught using mid-water trawls; icefish fisheries occur around sub-Antarctic islands in the Indian Ocean and Atlantic Ocean sectors of the Southern Ocean, while the krill fishery currently operates in the Atlantic Ocean sector.

Many of the fisheries regulated by CCAMLR operate in areas that are characterised by a paucity of knowledge about the abundance and distribution of marine living resources. These fisheries have restrictive catch limits and are controlled so they do not expand faster than the acquisition of information required to manage each fishery in accordance with CCAMLR's ecosystem-based and precautionary approach.

Participation in most CCAMLR fisheries requires prior notification and agreement by the Commission and in some fisheries the fishing operations must include fishery-based research. Each fishery has a comprehensive set of spatial and seasonal limits which regulates the catch of target and by-catch species including strict limits on the incidental catch of seabirds. Some fisheries are sub-divided into small-scale research/management areas, and in some areas there are limits on the number of vessels which can participate in those fisheries.



*Patagonian Toothfish.
Courtesy Eric Appleyard, CCAMLR.*

In addition, each vessel is required to carry at least one scientific observer appointed under CCAMLR's Scheme of International Scientific Observation, and record catch, effort and biological data on a 'haul by haul' basis. Vessel movements, fishing activities and catches are carefully monitored by CCAMLR's Hobart-based Secretariat. The Secretariat uses a fisheries forecast model, based on real-time reports of catches and fishing effort, to provide the vessels in the fishery with closure notifications as the catches approach the designated catch limits for any of the target or by-catch species in each area.

So far this season, the fishing fleet has been targeting mostly Antarctic toothfish in the Ross Sea. This fishery usually reaches the catch limits set by the middle of January, however; this season extensive sea-ice has restricted access to the fishing grounds, resulting in delays in fishing and exposing vessels to additional risks (see article, previous page, on Southern Ocean vessel safety).

For further reading, please visit the CCAMLR website.

Whale tales

- Sea Shepherd's trimaran, Brigitte Bardot, was unable to assist this season, after a freak wave damaged the hull. The vessel was towed to Fremantle, WA for repairs.
- Three anti-whaling activists who boarded the Shonan Maru No. 2 in January were transferred to Australia's Customs ship Ocean Protector and returned to Perth.
- Activists on the Steve Irwin hurled containers of rotten butter and paint at Yushin Maru No. 2, and the Japanese returned fire with percussion grenades, teargas and sticks.
- Japanese harpoon ship, Yushin Maru No. 3, was observed in World Heritage-listed waters near Macquarie Island in January.
- Increasing numbers of migrating whales, returning to Antarctica with their babies, have been observed off the NSW coast, with an increase in whale tourism expected down the east coast of the mainland and Tasmania.



Polar News

Mawson flotilla

More than 150 vessels joined the commemorative flotilla marking 100 years since Mawson's departure to Antarctica. Aurora Australis led the sail-past of the Governor's vessel Egeria, while a nineteen-gun salute boomed out across the Derwent River. Spectators gathered in the regatta grounds or viewed the flotilla from the Governor's marquee, while the icebreaker, followed by CSIRO Southern Surveyor, the Cartela, Tasports tugs, police vessels and Tall ships such as the Young Endeavour and Lady Nelson, plus vintage boats, including the steamboat Preana sailed towards the Tasman Bridge, then turned and continued towards Sandy Bay and beyond. While Aurora Australis departed for Antarctica, other craft followed as far as the Iron Pot, then gathered in bays for picnic lunches, while the Cartela returned to Hobart so its passengers, mostly family and friends of the expeditioners who accompanied Mawson, went to Hadley's Hotel for lunch.

Australian Award

Professor Denzil Miller, current Director of Antarctic Tasmania, Science and Research, was appointed an Honorary Officer in the Order of Australia for his service to the conservation of Antarctic marine life during his role as executive secretary of CCAMLR.

New website name

The Australian Antarctic Division's website, previously www.aad.gov.au, is now www.antarctica.gov.au

Mawson online

State Records of NSW have developed an online display about Douglas Mawson's published scientific data.

Replica funds

Mawson's Huts Foundation has joined with the Australian Geographic Society to raise funds to construct a replica of the main Mawson's Hut. The replica will be built in Launceston. Heritage carpenters and staff from the School of Architecture will use Baltic and Oregon pine to build the hut in four sections, which will then be transported to Hobart for reassembly near Mawson Pavilion in Hobart. Donations are welcome and can be made to MHF, with details on their website.

Pole to Pole complete

Marathon runner, Pat Farmer, completed his North to South Pole trek in January 2012. Averaging 85 km a day for nine months, Pat raised \$100,00 for the Red Cross.

Australians Cas and Jonesy completed their longest-ever, unassisted trek to the South Pole from the coast and back on January 26, 2012.

Fewer flights

Scheduled flights to Wilkins Aerodrome were reduced to four over three weeks this summer, due to warmer temperatures melting snow on the runway. One unscheduled flight was made to rescue an injured expeditioner in January, while the most reliable time was February. The warmth is possibly the result of a 10-year temperature cycle, although a longer period of observation is needed to understand the length of cycle.

Youngest climber

Antarctica's Mt Vinson was the seventh of the world's highest mountains to be climbed by 15-year-old Jordan Romero. Jordan climbed his first highest mountain, Mt. Kilimanjaro, when he was 10 and he is now the youngest to have climbed mountains on seven continents.

TV programs in Antarctica

David Koch from Channel 7's Sunrise program was broadcast live from Casey Station in February. Over three days, Kochie was shown taking off from Hobart in Skytrader's plane, touching down at Wilkins Aerodrome and describing the area around Casey. Dr Harry from Better Homes and Gardens travelled by the cruise ship L'Austral to Antarctica in an episode the same week.

English broadcaster Tony Robinson visited Hobart in November last year to film a scene from his next program, Time Walks. Tony dressed in a reindeer coat similar to that worn by Roald Amundsen in 1912, when he sent a telegram from the Hobart Post Office to the King of Norway to inform him about reaching the South Pole first.

Auction items

The Mawson's Huts Foundation Dinner in December 2011 included an auction of a variety of items to raise further funds for the MHF. A surprise late entry was four seats on Skytrader's corporate jet, to fly over the Mawson flotilla the next day. These sold for \$1,200.

Marion Wheatland's Mawson balaclava was sold for \$1,100 to a tourist due to leave for Commonwealth Bay that night. He planned to wear it outside Mawson's Hut, but the cruise ship was unable to reach the bay due to thick ice.

A gallery to sea

A gallery specialising in maritime art, has been opened at the IXL Courtyard in Hunter St, Hobart.



Guests at the Governor's Reception



Sir Guy Green, Bill Bleathman & Hon. Tony Burke at Exhibition launch



Guests at the MHF dinner, Sue Halliwell



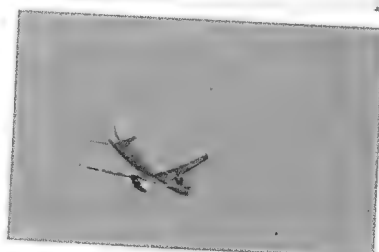
Guests at MHF dinner, Sue Halliwell



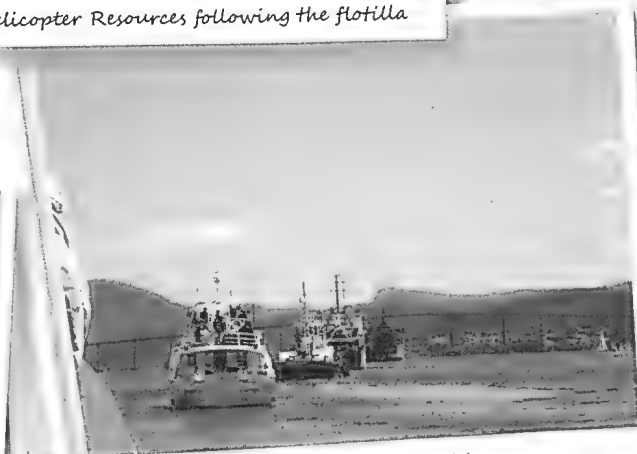
Helicopter Resources following the flotilla



Flotilla from the Cartila



Skytraders' jet, Sue Halliwell



Flotilla heading for the bridge



Antarctic cruise ships



Relaxing after the events, Sue Halliwell

Polar Publications

BOOK: Australia and the Antarctic Treaty System: 50 years of influence

Edited by Marcus Haward and Tom Griffiths
Published by New South Publishing
Price: \$59.95

Provides insights into the political interviews, legal analysis, scientific research and historical investigations of Australians who have contributed to the establishment and development of the Antarctic Treaty System.

.....

BOOK: Mawson and the Ice Men of the Heroic Age: Scott, Shackleton and Amundsen

Peter Fitzsimmons
Published by William Heinemann
Price: \$49.95

Links the life of Mawson with those of Scott, Shackleton and Amundsen, ranging from history, geography and polar exploration, to political and scientific competition and the men's personal lives.

.....

DVD: BBC Earth: David Attenborough Wildlife Collection

Available through The Mercury newspaper in Hobart. Includes Planet Earth: Pole to Pole and Life in the Freezer: The Big Freeze.

BOOK: The Ice Pilots: Flying with the Mavericks of the Great White North

Mike Viessides
Published by Douglas & McIntyre
Price: \$8.99

Follows a group of pilots in Yellowknife, Northwest Territories, Canada, who use 1940s propeller planes to fly fuel, supplies and passengers to remote outposts.

.....

BOOK: No Return: Captain Scott's Race to the Pole

Peter Gouldthorpe
Hachette
Price: \$28.99

A children's book based on Scott's Terra Nova expedition, with illustrations based on Herbert Ponting's black and white photos.

.....

BOOK: Shipwrecks of the Southern Seas

Craig Cormick
Published by Pier 9
Price: \$34.99

Relates 22 stories about sailing and steam ships' shipwrecks, mutiny, piracy and marooning around Australia, New Zealand and the Pacific.



BOOK: Arctic Adventure: Starlight Snowdogs 2

Skye Waters
Published by HarperCollins
Price: \$29.99

More adventures with Frosty and the magical dogsled team, helping to overcome environmental problems caused by global warming.

.....

BOOK: The Quest for Frank Wild

Angie Butler
Published by Jackleberry Press
Price: \$25

Describes the final years of Wild's life as well as his memoirs of polar exploration.

.....

STAMPS: Phillip Law

This stamp issue marks the centenary of Phillip Law's birth in 1912. The first day of issue is March 6, 2012, with the national [postmark of Kingston Post Office]



Photo: Klaus Arne Pedersen

Ice Birds

Jeannie Ledingham

First Australian woman to spend a summer on the Antarctic continent, as medical officer on the 1977/78 Cape Denison expedition.

Elizabeth Kerry

First Australian woman to conduct a land-based scientific program on the continent in 1978/79.

Australian women's firsts in Antarctica

Louise Halliday

First Australian woman to winter on the continent at Davis Station in 1981.

Alice Giles

First Australian professional musician to perform in Antarctica, when recordings of her harp performance were made at a concert at Mawson Station in February 2011.




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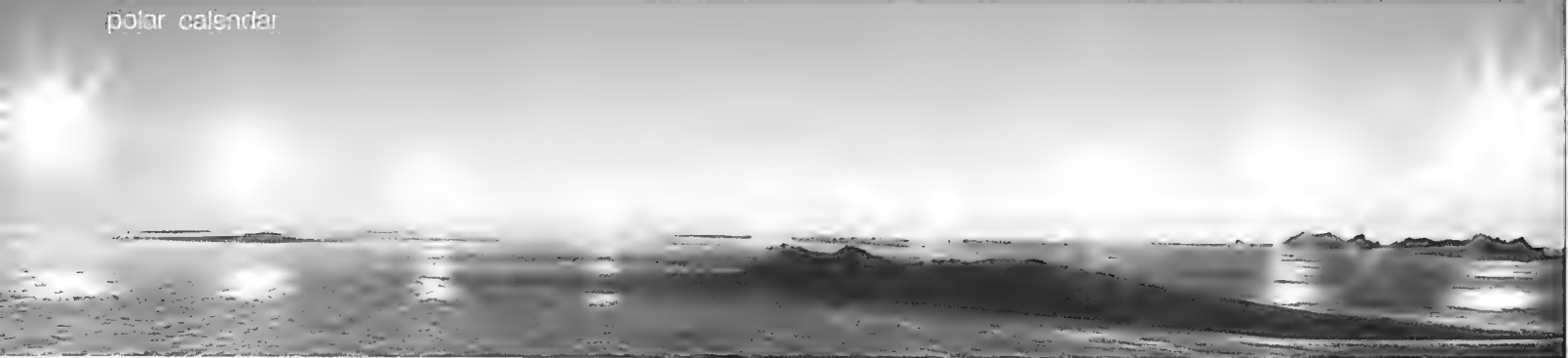
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1 30	March April	2012- 2012	Pure Antarctica. Cultural events including 'Antarctica the Musical. For more details, see centenary.antarctica.gov.au/events .
4-10	March	2012	Sea Week.
7	March	2012	Centenary of Roald Amundsen arriving in Hobart and sending a telegram from the GPO to King Haakon VII of Norway, stating he was the first to reach the South Pole.
9-11	March	2012	International Polar Heritage Committee meeting and Open Conference. Hobart, Tasmania.
11	March	2012	Amundsen Centennial and Huskies Picnic Day. 10.00am-3.00pm. St David's Park and other venues. Hobart, Tasmania. see centenary.antarctic.gov.au for further details.
23	March	2012	World Meteorological Day.
26-29	March	2012	Planet Under Pressure Conference - Ice Sheets and Glaciers in a Warming World. London, UK.
31	March	2012	End of Geoscience Australia's Antarctic Display in Canberra, ACT.
20-22	April	2012	Arctic Science Summit Week. Montreal, Canada.
22-27	April	2012	International Polar Year Conference, 'From Knowledge to Careers' and 'From Knowledge to Action' Workshops, plus Workshop for Science Teachers. Montreal, Quebec, Canada.
22-26	April	2012	8th International Conference on Contaminants in Freezing Ground. Innsbruck University Centre, Obergurgl/Tyrol, Austria.
4	May	2012	Australian Academy of Science 2012 Symposium celebrating Mawson's centenary. Theme: Antarctic science from Mawson's expedition to today.
22-24	May	2012	18th International Symposium on Polar Sciences: Milestones in Polar Research Collaboration. Jeju Island, Republic of Korea.
1-30	June	2012	Latitude exhibition by Karin Beamont, marine biologist and Vicki West, Aboriginal artist. Jewellery, objects and installations. Art Space Gallery. Hobart.
5	June	2012	World Environment Day.
7 30	June July	2012- 2012	An Awfully Beautiful Place. Mixed media Antarctic art exhibition by Stephen Eastaugh. Carnegie Gallery, Hobart.
11-20	June	2012	35th Antarctic Treaty Consultative Meeting. Hobart, Tasmania.
17-22	June	2012	ISOPE-2012 22nd International Offshore ((Ocean) and Polar Engineering Conference and Exhibition. Rhodes, Greece.
23	June	2012	Tasmanian ANARE Club Midwinter dinner. Hobart Function and Conference Centre. Contact anare.tasmania@yahoo.com.au . For details of all ANARE dinners, see www.anareclub.org.au
25-29	June 2012		Tenth International Conference on Permafrost. Tyumen, Russia.

centenary.antarctica.gov.au
antarcticcentennial.tas.gov.au
www.environment.gov.au/about/media/events
www.scar.org/events

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CENTENARY OF ROALD AMUNDSEN ATTAINING GEOGRAPHIC SOUTH POLE 14 DECEMBER 1911



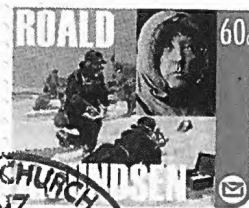
Amundsen at Pole 1911



Norwegian Flag at Pole 2008



Roald Amundsen



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13-15	March	2012	Aurora Australis	V4	Arrives Hobart, departs for Davis Station
27-29	March	2012	Aurora Australis	V5	Davis Station
3-5	April	2012	Aurora Australis	V5	Casey Station
14-16	April	2012	Aurora Australis	V6	Arrives Hobart. Departs for Macquarie Island
19-27	april	2012	Aurora Australis	V6	Macquarie Island
30	April	2012	Aurora Australis	V6	Arrives Hobart. Off-hire

The Masters on Aurora Australis will be Murray Doyle and Scott Laughlin
 The Masters on L'Astrolabe will be Benoit Hebert and Stanislas Zamora.

A Tasports tug and Police boat astern of Aurora Australis as it departs for Antarctica



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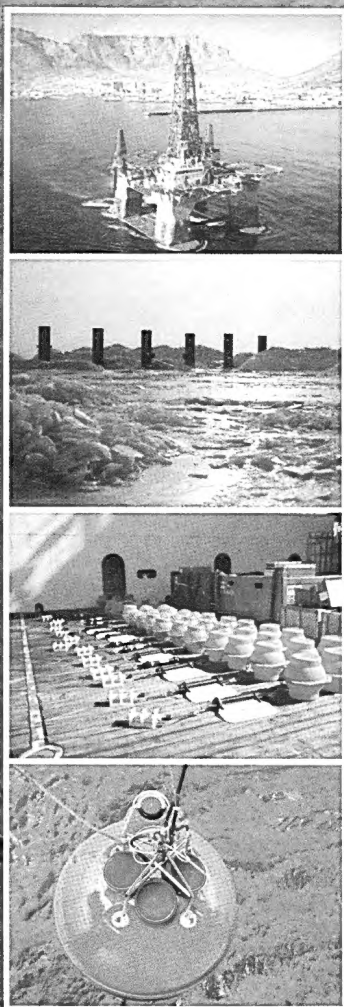


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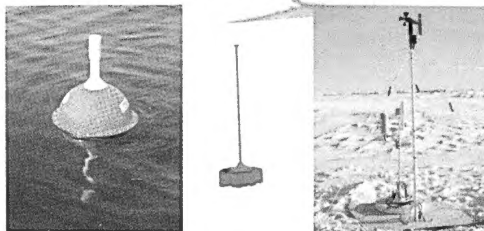


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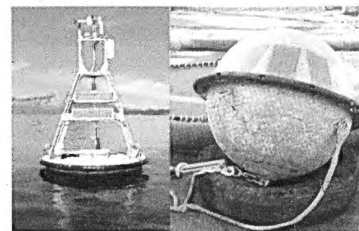


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